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preferred equivalent operational amplifier OA subcircuit that includes negative feedback as shown in Figure 4, with only shunt capacitor C4 and feedback resistor R4 remaining along with voltage source  $V_{DROP}$ , and low noise power supply  $V_{IN}$ , from among the circuit elements shown in Figure 3. From Figure 4, a frequency,  $f_{VOUT}(-3db)$  is defined, in which the impedance of shunt capacitor C4 is equal in magnitude to the impedance of feedback resistor R4. At  $f_{VOUT}(-3db)$ ,  $\frac{1}{2} \Delta V_{OUT}$  is dropped across feedback resistor R4 and the other  $\frac{1}{2} \Delta V_{OUT}$  across shunt capacitor C4. In other words, at the frequency  $f_{VOUT}(-3db)$ , the circuit impedance of the Figure 4 combination of elements seen by the noisy load 401 is equal to the dynamic load impedance of the noisy load 401 itself.

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